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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,728	03/13/2001	Kannan Srinivasan	696.005	2029
35195 7590 11/04/2009 FERENCE & ASSOCIATES LLC 409 BROAD STREET PITTSBURGH, PA 15143			EXAMINER RETTA, YEHDEGA	
			ART UNIT 3622	PAPER NUMBER
			MAIL DATE 11/04/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/804,728

**Applicant(s)**

SRINIVASAN ET AL.

**Examiner**

Yehdega Retta

**Art Unit**

3622

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-23, 25, 27-37, 39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-23, 25, 27-36, 37, 39 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This office action is in response to amendment filed June 30, 2009. Applicant amended claims 21, 23, 29, 31, 34, 35, 37, 39, 40 and canceled claims 24, 26, 36 and 38. Claims 21-23, 25, 27-35, 37, 39 and 40 are pending.

#### ***Claim Objections***

Claim 39 is objected to because of the following informalities: Claim 39 is now depending on a canceled claim (claim 38). Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 35 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites the sample comprising *other defunct customers*, offering different promotions to *the other defunct customers* and determining the promotion based on responses to different promotions offered to *the other defunct customers*. Since it is not specified in the claim a customer who is considered a defunct, it is unclear which customers are considered other defunct customers.

Claim 35 recites the limitation "the permissible defunct threshold". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21-23 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Martin et al. (US 2001/0014868 A1).

Regarding claims 21-23 and 34, Martin teaches determining if a customer is likely to leave a web site and offering a promotion dynamically utilizing continuous real-time modeling (see col. 7 line 25 to col. 9 line 55). Martin teaches estimating the expected service time necessary to serve a particular customer (see col. 2 line 51 to col. 3 line 11, col. 4 lines 48-58).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-33 and 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. (US 6,338,066) in view of Dahm et al. U.S. Patent No. 6,301,471.

Regarding claims 25-33 and 35, Martin failed to explicitly disclose specifying a defunct threshold and determining the probability that a customer will be defunct. Dahm teaches

specifying a permissible defunct threshold (predetermined threshold values) at a manager console (see fig. 5A); and determining a probability that a customer will become defunct (see fig 5A). Dahm also teaches determining a dynamically optimized promotion, wherein the dynamically optimized promotion is determined by sampling via a sampling engine (see fig. 6A-6F, fig. 7B, col. 3 line 53-58); the sampling comprising: determining a size of a sample, the sample comprising defunct customers (see col. 8 lines 44-54), wherein a customer is defunct if the probability that the customer will become defunct is greater than the permissible defunct threshold; offering different promotions to the defunct customers; and determining the dynamically optimized promotion based on responses to the different promotions offered to the defunct customers (see col. 8 lines 55-67, col. 9 lines 1-6, col. 11 line 55 to col. 12 lines 31 col. 15 lines 25-49); wherein the dynamically optimized promotion is propagated to a web site (col. 16 lines 6-18). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Dahm's defunct threshold in Martin's behavior prediction, in order to predict a customer who is most likely to churn or discontinue the service, and to provide a proper offer to retain such customers.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 37 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Herz et al. (US 2001/0014868 A1).

Regarding claims 37 and 39 Herz teaches determining if a customer is defunct; specifying a permissible defunct threshold (time period when customer is considered lost) (see [0246]), and determining a dynamically optimized promotion by sampling by determining the size of a sample; offering different promotions to the defunct customers; determining a promotion dynamically optimized utilizing continuous real-time modeling, based on responses to the different promotions offered to the defunct customers wherein the dynamically optimized promotion is propagated to the web marketing site wherein the sampling is run continuously (*see* [003], [0020] [0046] [0155]-[0158], [0165],[0166]).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herz et al. U.S. Application No. US 2001/0014868.

Regarding claim 40, Herz teaches storing user profile attributes, including elapsed time period since the last purchase, elapsed time period between purchases (average), ranges elapsed period to previous offers, total amount spent over the past 6 month, maximum volume spent on a single shopping spree. Herz also teaches determining when a customer is considered lost

(defunct). Herz further teaches providing most aggressive promotional offers possible to the one considered lost (defunct) and less aggressive discount to very loyal customer (see [0246]. Herz also teaches dynamically optimized promotion changes by a particular amount (see [0073], [0236]-[0242]. It would have been obvious to one of ordinary skill in the art at the time of the invention for the most profitable customer (with high volume spending habit) of Herz to be considered lost, when the elapsed time period is lower than the elapsed time period of a less profitable customer. One would be motivated to keep the most profitable customer and provide most aggressive promotional offer, as taught in Herz.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 21-23, 25 and 27-35 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments regarding claims 37 and 40, filed 6/30/09 have been fully considered but they are not persuasive. Applicant argues that Herz does not teach offering a promotion dynamically optimized utilizing continuous real-time modeling. Examiner respectfully disagrees. Herz teaches automatic determination of which products a shopper would be most likely to buy and what prices and promotions a vendor should offer the shopper in order to maximize the vendor's profit. Herz also teaches the system automatically constructs and updates profiles of a plurality of shoppers ... which history includes both their purchases and requests for or reactions to product information ... (see [0002]-[0005]). Herz teaches a real-time analyzes of shopper presented with offers and determining which shoppers accepted the offers and determining which the likelihood other shopper would accept a given offer (which is a continuous real-time analyzes) (see [0037]).

Regarding claim 40, Examiner would like to point out that Herz teaches by collecting on-line customer behavior determining considering a customer is lost (defunct). Herz teaches attributes in the profile ... can include activity as a function of time; the number of purchases made or information requested (e.g. web pages retrieved) over a given time interval by all shoppers or a shoppers with certain attributes. Herz teaches a shopper profile set up to store many attributes such as but not limited to, e.g. number of times the shopper has used the online shopping system, average duration per use, total number of purchases (for the last month) etc. (see [0111]-[0138]). It would have been obvious to one of ordinary skill in the art at the time of the invention different customers to be considered lost using different time period, based on how often each customer visits a site or based on total number spent on a specific period of time.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yehdega Retta whose telephone number is (571) 272-6723. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YR

/Yehdega Retta/  
Primary Examiner, Art Unit 3622